

C-Nav[®]

C-Monitor[®] Quick Start Guide

Revision 10

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Release Notice

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Manual Organization

This is a short tutorial explaining the minimum steps required to configure a fresh **Oceaneering[®] C-Monitor[®]** QA/QC software installation. Sections are organized in a manner that facilitates quick operator orientation.

[Section 1 - Sentinel Dongle Driver Installation](#) (Page 8) details how to install the Sentinel Dongle driver, which is needed to run the C-Monitor[®] QA/QC software.

[Section 2 - C-Monitor[®] QA/QC Software Installation](#) (Page 9) describes how to install the C-Monitor[®] QA/QC software.

[Section 3 - Running](#) (Page 14) explains how to run the C-Monitor[®] QA/QC software and connect to an **Oceaneering[®] C-Nav3050[®]** GNSS receiver.

[Section 4 - Troubleshooting](#) (Page 18) explains two common methods for troubleshooting when contacting C-Nav[®] Support (cnavsupport@oceaneering.com).

Related Documents

CNAV-MAN-020.3 (Sentinel Driver Installation Manual)

Describes the process used to install the SafeNet Sentinel Dongle driver for use with C-Scape. It is available on the C-Nav[®] website at [https://www.oceaneering.com/C-Nav/Software/Utilities/PDFDownloads/CNAV-MAN-020.3%20\(Sentinel%20Driver%20Installation%20Manual\).pdf](https://www.oceaneering.com/C-Nav/Software/Utilities/PDFDownloads/CNAV-MAN-020.3%20(Sentinel%20Driver%20Installation%20Manual).pdf).

CNAV-MAN-013.9 (C-Setup Quick Start Guide)

The C-Setup Quick Start Guide provides the user with the necessary information to install and run C-Setup. It is available from the C-Nav[®] website at [https://www.oceaneering.com/C-Nav/Software/C-Setup/PDFDownloads/CNAV-MAN-013.9%20\(C-Setup%20Quick%20Start%20Guide\).pdf](https://www.oceaneering.com/C-Nav/Software/C-Setup/PDFDownloads/CNAV-MAN-013.9%20(C-Setup%20Quick%20Start%20Guide).pdf).

CNAV-MAN-008.6 (C-Scape Quick Start Guide)

The C-Scape Quick Start Guide provides the user with the necessary information to install and run C-Scape. It is available from the C-Nav[®] website at [https://www.oceaneering.com/C-Nav/Software/C-Scape/PDFDownloads/CNAV-MAN-008.6%20\(C-Scape%20Quick%20Start%20Guide\).pdf](https://www.oceaneering.com/C-Nav/Software/C-Scape/PDFDownloads/CNAV-MAN-008.6%20(C-Scape%20Quick%20Start%20Guide).pdf).

Manual Conventions

Arial font is used for plain text in this document.

Arial italic font is used for settings names.

“Arial quoted” font is used for settings values.

Arial Bold font is used for button names.

Arial Bold Italic font is used for menu items.

Arial Blue font is used for cross-references.

Arial Blue Underline font is used for hyperlinks.

Arial red italic is used for typed commands.

Arial Bold font size 10 is used for captions.

ARIAL BLACK ALL-CAPS font is used for port connection names.



This symbol means Reader Be Careful. It indicates a caution, care, and/or safety situation. The user might do something that could result in equipment damage or loss of data.



This symbol means Danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical and RF circuitry and be familiar with standard practices for preventing accidents.

Important notes are displayed in shaded text boxes.

Please note:

Such note boxes display important information that should not be ignored.

Simple file content is displayed in Courier New Black font in a text box.

```
#Sample File  
Version 0.1
```

Section 1 - Sentinel Dongle Driver Installation

Sentinel Dongle Driver Installation

The C-Monitor[®] QA/QC software is protected by a security dongle that must be installed before running the application. For instructions on how to install the Sentinel Driver, please see the document Sentinel Driver Installation Manual available from <https://www.oceaneering.com/positioning-solutions/customer-access-and-resources/#sw-cmonitor>.

Section 2 - C-Monitor[®] QA/QC Software Installation

Warning:

Updating from version 6.x to version 7.x requires a complete uninstallation of the C-Monitor[®] QA/QC software. Failure to remove the previous version will produce unexpected results.

1. Download the C-Monitor[®] QA/QC software from <https://www.oceaneering.com/positioning-solutions/customer-access-and-resources/#sw-cmonitor>.
2. Double click the “C-Monitor vX.Y.Z Installer.exe” file to start the installation wizard.
3. Choose the Destination Location then select **Next >** to proceed. The default installation location is:
Windows Vista and higher:
C:\Program Files (x86)\C-Nav\C-Monitor
Windows XP:
C:\Program Files\C-Nav\C-Monitor

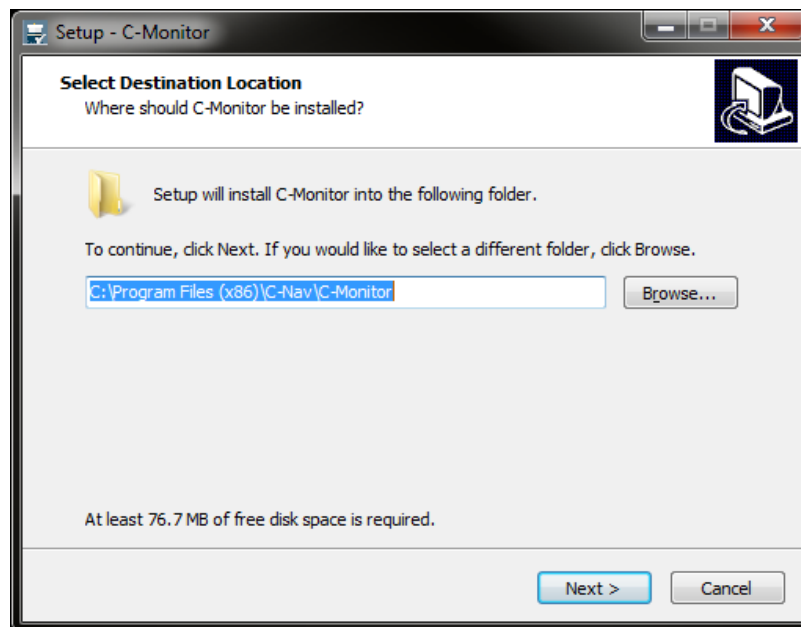


Figure 1: Selecting Installation Folder

4. Select a Program Folder to add a shortcut in the Windows Start menu and select **Next >** to continue. The default folder is “C-Nav”.

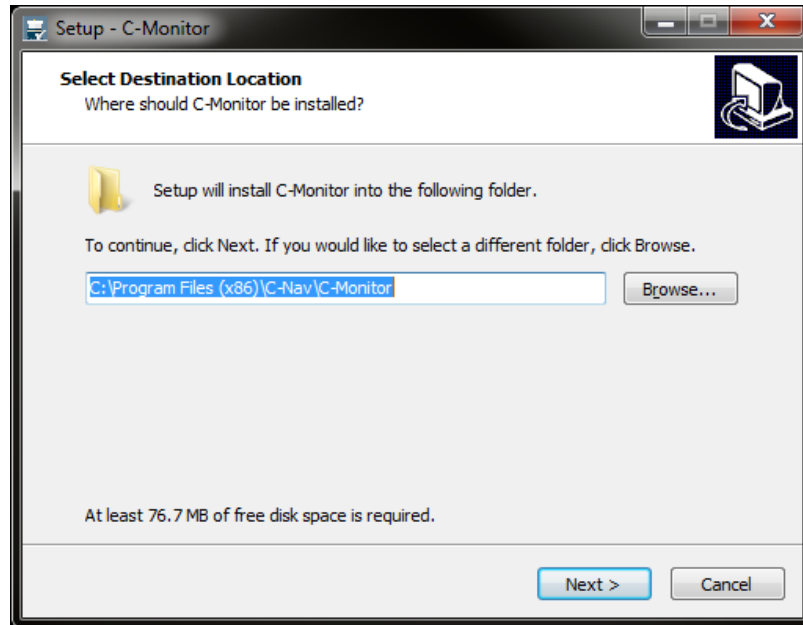


Figure 2: Selecting Installation Start Menu Folder

5. Optionally, check the *Create a desktop shortcut* box to create a Desktop shortcut to the C-Monitor[®] QA/QC software. For Windows XP computers, there is also an additional option to *Create a Quick Launch icon*.

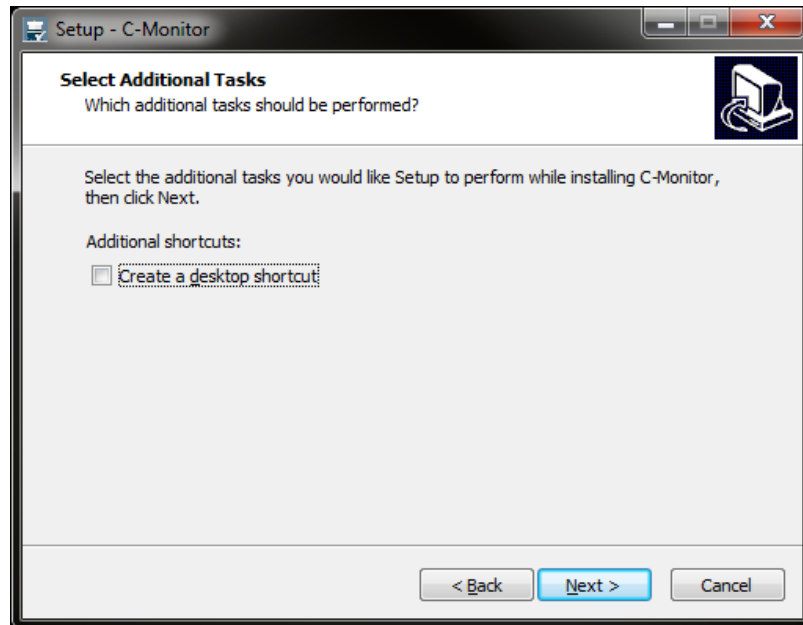


Figure 3: Selecting Shortcuts

6. Review the settings and press **Install** to start the installation.

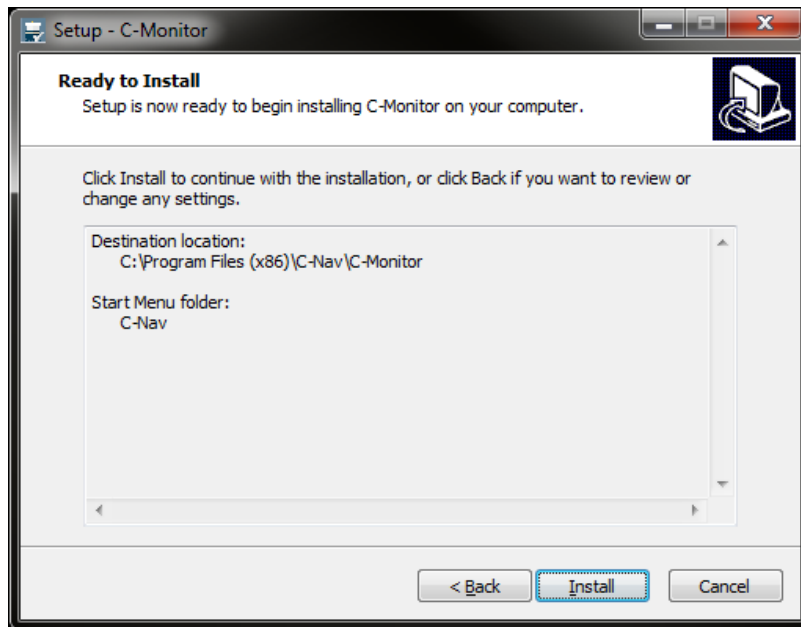


Figure 4: Configured Installation

7. Press **Finish** to complete the installation.



Figure 5: Finished Installation

Section 3 - Running the C-Monitor[®] QA/QC Software

1. Click the **C-Monitor** shortcut in the Windows Start menu to run the application.
2. Connect the GNSS receiver to an available PC serial communications port or an active Ethernet switch.

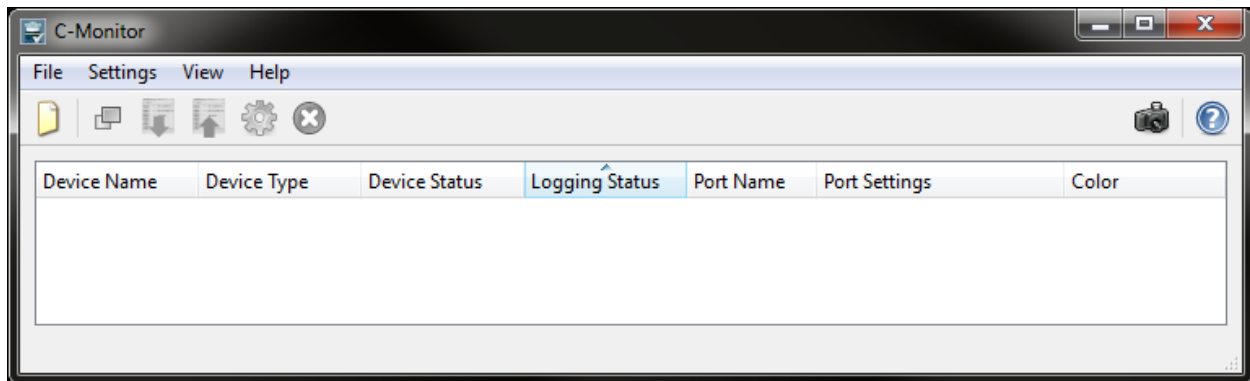



Figure 6: C-Monitor[®] QA/QC Software Main Window

3. Use **File / New** or push the **New** () button on the toolbar to open the **Add New Device** dialog to create a new device.
4. Choose the correct *Device Type* of the GNSS receiver and then select a *Device Name* and *Device Color* to help differentiate connected receivers.

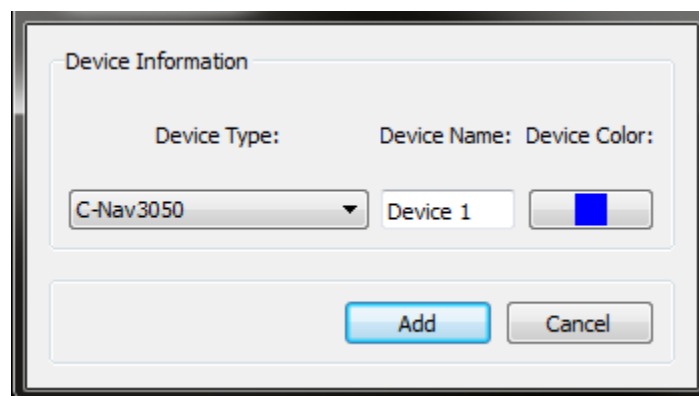


Figure 7: Adding a GNSS Device

5. After creating the new device, an empty device window will appear. Use **File / Connect Port** or press the **Connect Port** (🔌) button on the toolbar to configure the communications settings.

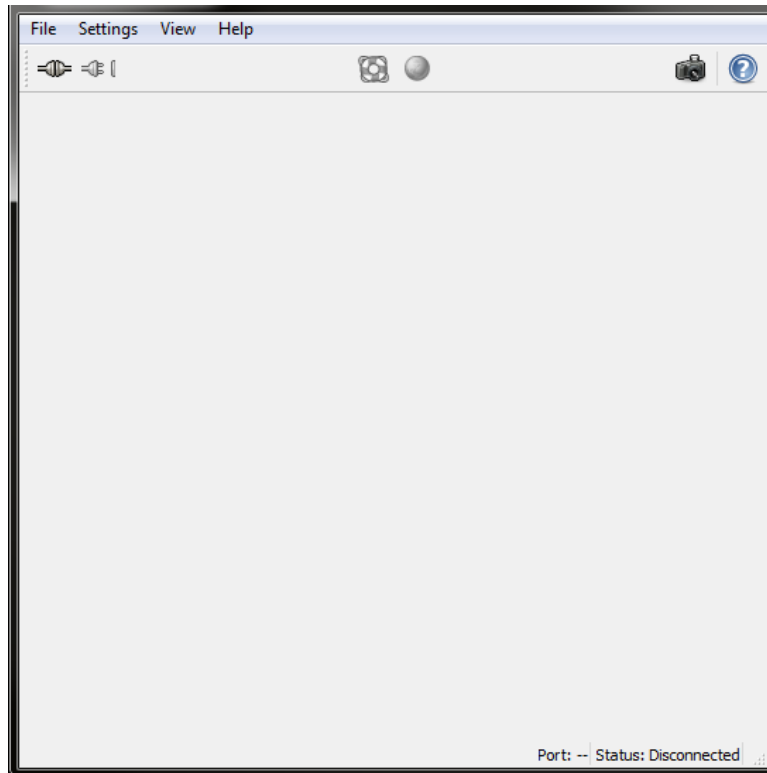


Figure 8: Disconnected GNSS Device

6. Select the communications settings for the connected receiver.
 - a. For a serial port, select the *Port Name*, *Baud Rate*, *Parity*, *Data Bits*, and *Stop Bits*; or let the C-Monitor[®] QA/QC software determine the settings by selecting *Auto Baud*.
 - b. The C-Nav3050[®] GNSS receiver, C-Mariner, and NMEA183 devices can also be connected via an Ethernet connection. To connect via Ethernet, select the *Protocol* then enter the *Remote Address* and *Remote Port*.

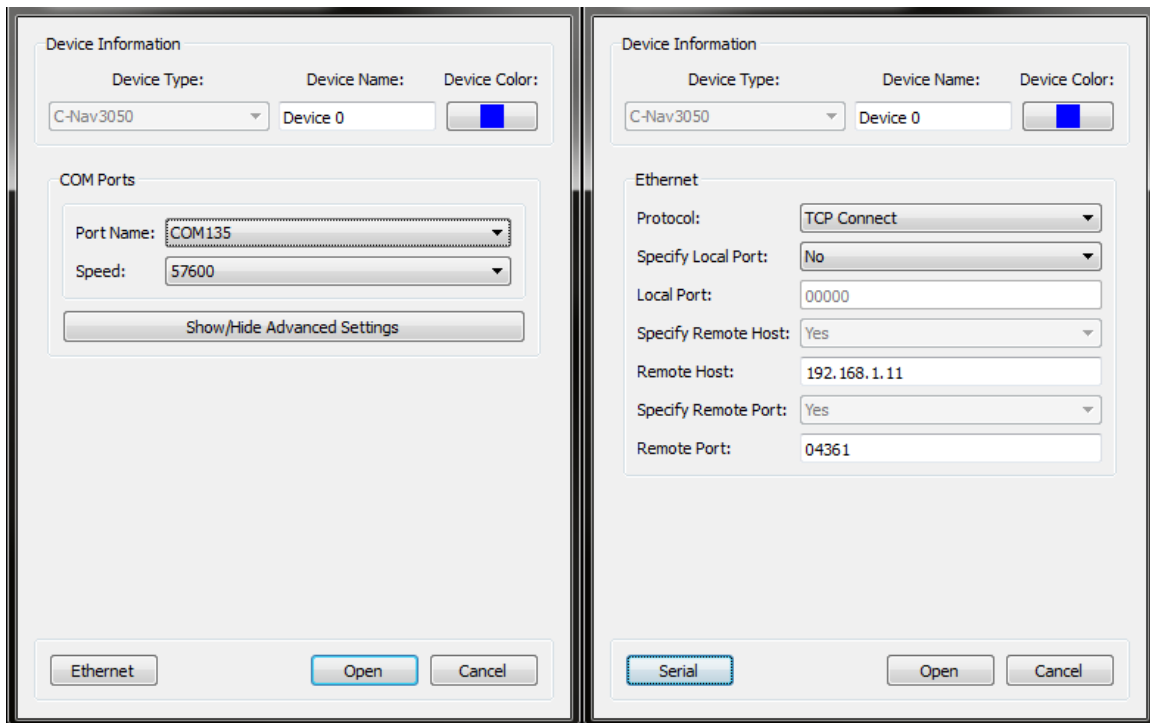


Figure 9: Configuring the GNSS Port Connection

7. Allow 2-5 seconds to establish communication with the device. Additional time may be required *Auto Baud* option was selected.

- The status bar will read “Connected” once communication has been established.



Figure 10: Connected GNSS Device

Section 4 - Troubleshooting

Snapshot

In the event of an issue, the first step when contacting C-Nav® Support is to create a snapshot of the system. The snapshot is a human-readable report of the system, including information and settings for each device, C-Monitor® QA/QC software settings, and general configuration information. This file will detail to C-Nav® Support how the user's system is configured.

There are multiple ways to save a snapshot. In the main window or any device window, the user can select **File / Save Snapshot** or press the **Snapshot** button on the toolbar.

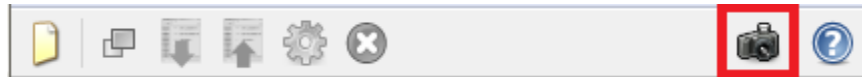


Figure 11: Snapshot Button in Toolbar

The system will prompt for a location to save an .html file. After saving the file, the user can send it in to C-Nav® Support along with a description of the issue.

Note:

A snapshot with no data indicates that C-Monitor® QA/QC software is not communicating with the connected device(s).

Log Data

1. In order to troubleshoot certain issues, C-Nav[®] Support will need raw logged data. Each device can log its own data using the **File / Log Data**.

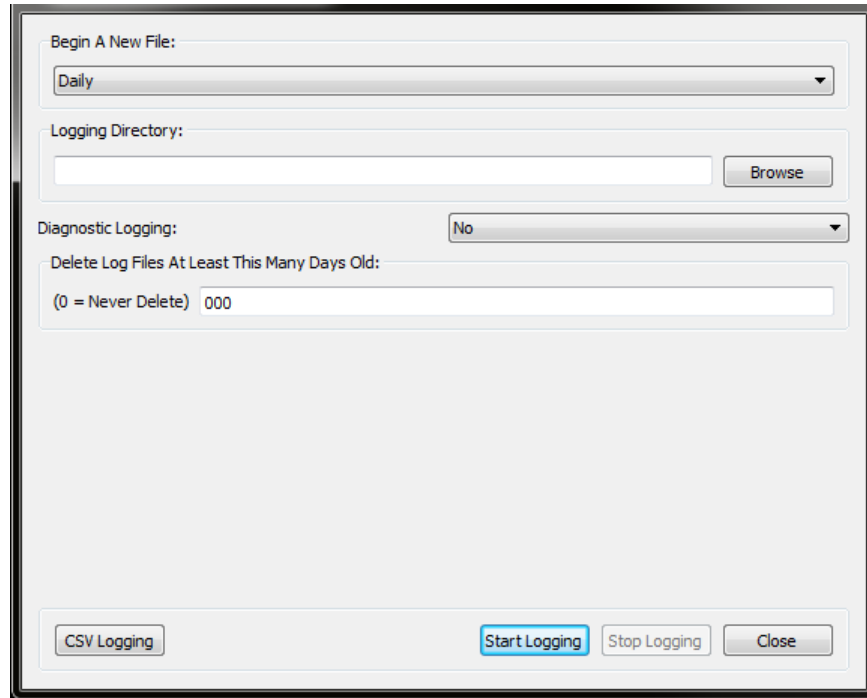


Figure 12: Log Data Dialog

2. Select the logging regime in the *Begin A New File* dropdown.

Regime	Function
Daily	Generates a new log file at midnight UTC each day.
Hourly	Generates a new log file at the top of each hour.
Each Time Start Logging	Generates a new log file each time the Start Logging button is pressed.
Never (Fixed File Name)	Saves to a single file, no matter how long logging is active.

Table 1: Logging Regimes

3. Select the *Logging Directory* to write the log files to. If “Never (Fixed File Name)” is selected as the logging regime, this will be the file name to save to.
4. Certain devices like the C-Nav3050[®] GNSS receiver can add diagnostic data to the log file. This extra data is useful in a small number of situations but causes the log files to be significantly larger in size. It is not necessary to enable *Diagnostic Logging* unless asked by C-Nav[®] Support.

5. If disk space is limited, the user can set the device to only keep a limited number of days of log files. After the desired number of days has passed, log files that are older will be deleted. If disk space is not an issue, leave this setting at “0”.
6. Certain devices have the ability to log data in both raw binary and CSV format. For troubleshooting purposes, always use raw binary. Raw binary is the default format when opening the **Log Data** dialog.
7. Press the **Start Logging** button to begin logging. Logging will continue until the C-Monitor[®] QA/QC software is closed or the **Stop Logging** button is pressed. If the C-Monitor[®] QA/QC software is closed while logging is active, it will begin again when the C-Monitor[®] QA/QC software is re-opened.

Appendix A - File Locations

There are several files used by the C-Monitor[®] QA/QC software that are in various locations on the computer. The on-disk location of each of these files is determined by the version of Windows the computer is running.

Settings File

The C-Monitor[®] QA/QC software automatically saves all device configuration data to a single settings file. Each user has their own version of the settings file. This file is located at:

Windows Vista and higher:

C:\Users\{USERNAME}\AppData\Local\C-Nav\C-Monitor\ConnSetting.ini

Windows XP:

C:\Documents and Settings\{USERNAME}\Local Settings\Application Data\C-Nav\C-Monitor\ConnSetting.ini

This file can be exported or imported using the **Settings / Export Settings** or **Settings / Import Settings** menu items of the main window.

Configuration Files

The C-Monitor[®] QA/QC software has several files that are not user-specific, so are stored in a common directory. These two files control the CCS OTI server list and the Corrections Satellite Configuration list.

The directory for these files is:

Windows Vista and higher:

C:\ProgramData\C-Nav\C-Monitor\

Windows XP:

C:\Documents and Settings\All Users\Application Data\C-Nav\C-Monitor\